Financial Reform as a Component of a Growth-Oriented Strategy in Africa

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James S. Duesenberry
Malcolm F. McPherson
Belfer Center for Science & International Affairs
John F. Kennedy School of Government, Harvard University

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For information contact:

Yoon Lee, Project Officer USAID AFR/SD/SA (4.06-115) Washington, D.C. 20523 Tel: 202-712-4281 Fax: 202-216-3373 E-mail: ylee@usaid.gov

Carrie Main, Project Administrator
Belfer Center for Science & International Affairs
John F. Kennedy School of Government
Harvard University
79 John F. Kennedy Street
Cambridge, MA 02138
Tel: 617-496-0112 Fax: 617-496-2911
E-mail: carrie_main@harvard.edu

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Abstract

This report, part of a series, examines some of the key elements involved in promoting financial reform as an element of a strategy to foster sustained economic growth. Our focus is Africa, although the principles involved are more broadly applicable.

First, the context within which financial reform in Africa is being undertaken is discussed. Next, the issues involved in promoting financial reform are highlighted. These include financial rehabilitation, improving financial markets, increasing financial competition, and improving financial supervision. Next, two special considerations that relate to the success of financial reform are addressed. These are capital flows and currency substitution, and deposit insurance and failure resolution. Finally, conclusions are made. The Annex discusses monetary programming and reserve management. This material is added in recognition of the fact that the promotion of financial reform requires action by the central bank (or monetary authorities) to ensure that its approach to monetary management provides the appropriate context for financial reform to proceed.

Authors:

James S. Duesenberry [jduesenberry@harvard.edu] is William Joseph Maier Professor of Money and Banking emeritus, at Harvard University.

Malcolm F. McPherson [malcolm_mcpherson@harvard.edu], Fellow, is currently Principal Investigator for the EAGER/Public Strategies for Growth with Equity study "Restarting and Sustaining Growth and Development in Africa". A multi-country study, it seeks to understand how African governments can be induced to revive *and* sustain economic reform.

^{*}This paper represents a reworking and updating of material first presented in J.S. Duesenberry *et al* 1992.

1. Introduction

Both practical experience and detailed empirical research shows that economic growth and financial development are highly correlated (McKinnon 1973; Shaw 1973; Fry 1988; Von Pischke 1991; White 1993; Levine 1997). Indeed, a major theme in the debate over the importance of having monetary policy determined by an "independent" central bank rests on the proposition that low rates of inflation are systematically associated with higher sustained rates of economic growth.

For developing countries, the pressures associated with financial globalization have added an extra dimension to the problem. In the wake of the Asian financial crisis in 1997 and 1998, the financial problems in Russia in 1998, and in Brazil in 1999, additional emphasis has been placed on mechanisms and policies that will strengthen the financial system. Key elements in this effort have been the restructuring of shaky financial enterprises, increased transparency in the national debt and reserve management, and far more attention to the consistency and credibility of monetary and fiscal policy.

These efforts have been undertaken by governments in developing countries for a number of reasons. First, the direct costs of financial restructuring have, in many cases, been spectacularly large (Wyplosz 1998). Second, the indirect costs of financial disruption in terms of lost economic growth, declining social welfare, and (potentially) civil disruption have also been high. And third, most governments now recognize that the persistence of shallow, dualistic, and distorted financial systems undermines the capacity for sustained economic growth.

Nonetheless, the distance between recognizing the problems posed by financial disruption and taking steps to effectively address them remains large. Financial reform requires that numerous well-entrenched interests lose their special access to "cheap" finance and subsidized foreign exchange. Local banks also find they have to become more competitive. These changes are typically vigorously resisted.

This chapter examines some of the key elements involved in promoting financial reform as an element of a strategy to foster sustained economic growth. Our focus is Africa, although the principles involved are more broadly applicable.

Section 2, which follows, discusses the context within which financial reform in Africa is being undertaken. Section 3 highlights the issues involved in promoting financial reform. These include financial rehabilitation, improving financial markets, increasing financial competition, and improving financial supervision. Section 4 addresses two special considerations that relate to the success of financial reform. These are capital flows and currency substitution; and deposit insurance and failure resolution. Section 5 has concluding comments. The Annex discusses monetary programming and reserve management. We have added this material in recognition of the fact that the promotion of financial reform requires action by the central bank (or monetary authorities) to ensure that its approach to monetary management provides the appropriate context for financial reform to proceed.

2. Financial Reform – The Context

The banking systems of many African countries are being restored to solvency, management and supervision are improving, and central banks have been moving towards indirect control of the supply of money and credit (Duesenberry and McPherson 1992; White 1993). But even with complete success in those areas, African banking systems will still service only a small part of the economies in which they operate. They have provided a safe haven for individuals who wish to save in financial form rather than invest in their businesses or those of relatives. A large part of these savings has been used to finance government deficits or the activities of government enterprises. The remaining bank assets consist mainly of loans to traders or loans secured by urban real estate.

Typically, commercial banks offer few services to the rural areas in which most Africans live. Critics of African financial systems frequently complain of the lack of formal finance for agriculture, for small and medium sized business and of the lack of term lending (Mead 1998). They are basically correct in asserting that commercial banks do not serve those markets. Funds raised through mortgages may, of course, be used for other purposes and while term loans may be uncommon, banks regularly roll over short-term loans for established customers. Nonetheless, commercial banks concentrate on short-term commercial credit.

This is not due to the inherent limitations of commercial banking. It is largely due to many years of attempts by governments to use banking systems to finance their development plans and for the personal profit of insiders as well as to the economic instability resulting from irresponsible government policies. Given a more stable macroeconomic climate, business risks would be reduced and there would be greater demand for capital of all types. Banks could fully utilize their resources for private credit instead of lending to governments and SOEs, or holding excess reserves. They would be able to raise funds for term lending and could safely undertake some maturity transformation with variable rate deposits and loans. A vigorous well-managed banking system could link itself to rural finance institutions, taking deposits and making loans.

In some countries, other private institutions provide additional forms of credit. Merchant banks or finance companies that are subject to fewer restrictions and take only large deposits are capable of providing term loans and of making loans to new small businesses. Leasing companies can also provide term loans using the leased item as security. It is important to recognize that to make small business loans, or lend to new businesses, the evaluation of borrowers and monitoring of their performance often makes the cost of lending high by comparison with rates charged to well established customers (Bottomley 1964; Adams 1971).

For most African countries, informal markets supply much of the credit to small and medium sized businesses and to new ventures. Lenders and borrowers usually have personal connections, thereby reducing the risks of lending and the need for detailed evaluation and monitoring. Up to a point then, the need for additional formal channels may be exaggerated. Nonetheless, existing arrangements are seriously limited. To the extent that established connections are essential, individuals and firms without these connections or lacking links to sources of informal finance are at a disadvantage.

The basic arrangements for providing rural credit are generally unsatisfactory. Working capital provided through marketing boards and government sponsored cooperatives has often resulted in heavy losses. The losses have been borne by the government (and ultimately by the donor community as they write down a country's debt). In the past, private traders in cash crops provided some rural credit. Rural traders and shopkeepers also provided credit using bank loans to supplement their own funds. Much of that activity was undermined by the low cost credit supplied by government agencies.

In most parts of Africa, women play an important independent role in agriculture and many types of marketing. The available credit sources for their activities are usually inadequate. Some women in urban areas need additional credit for trading or artisanal activities, but many of the women who could use additional credit productively are in rural areas. There are a number of special women's credit programs, mostly sponsored by NGOs. Although there are many such programs, few have been successful. The fundamental problem is that no program is sustainable unless it can cover its full operating costs. So far none of the micro-finance operations has proven to have low costs².

A number of lessons can be derived from the relatively large micro-finance programs such as have been implemented in Indonesia (Patten and Rosengard 1991). First, there is no general formula for supplying rural credit in all the varying situations to be found in developing countries. Second, no credit program can succeed if it does not charge borrowers the full cost of loan funds plus the costs of evaluation and monitoring the loans. Third, sanctions against defaulters must be enforced. And fourth, no credit program can be sustained without a viable financial system. This requires financial reform.

3. Promoting Financial Reform

Financial reform seeks to rationalize financial procedures, restructure financial institutions, and reorganize financial markets. The intention is to promote a set of viable institutions that have the capacity to competitively provide useful services to government, businesses, and individuals (Honohan 1990; Roe and Popiel 1987).

The financial systems in most African countries have shown signs of stress for many years (World Bank 1989). Rates of growth in money and credit have been inordinately high despite slow growth in real GDP and (often) declining exports. Inflation has been high, foreign debt has increased to insupportable levels, large amounts of domestic wealth have been transferred abroad, and currency substitution has been widespread.

Each African government can explain why its financial system has been under stress. There are many causes – drought, oil price shocks, rising real interest rates on external debt, fluctuating commodity prices, protectionism in developed countries, erratic foreign aid flows, and the colonial legacy of distorted incentives and captive markets. While suggestive, none of these explanations accounts for generally inadequate attempts that governments have made to adjust their financial policies. Nor do they account for the massive amounts of debt (both local and foreign) which were voluntarily incurred by each government during the late 1970s and early 1980s.³ That borrowing,

which was not effectively used to promote economic development, intensified each country's financial difficulties.

While some of the above items had adverse financial repercussions on African countries, they do not explain the persistence of financial imbalances across Africa. These have resulted largely from continued government interference in the financial system. That interference has had a major impact on bank performance, particularly of the state-owned banks. Many of these banks experienced large losses. For example, The Gambia Commercial and Development Bank at one point had a non-performing portfolio equivalent to 95 percent of its assets (McPherson and Radelet 1995). The National Commercial Bank of Tanzania had a similarly large proportion of its portfolio non-performing. The interference also created large distortions that led many asset holders to seek alternative (primarily off-shore) sources of financial services.

To be effective, financial reform has to address these adverse effects. It typically attempts to reduce the degree of government interference by shifting away from interest rate controls, the direct allocation of credit, and the promotion of special financial institutions (particularly the so-called development banks). To succeed, these actions have to address the sources of market and non-market failures that fragment the financial system, inhibit financial intermediation, and undermine financial development. Other aspects of macroeconomic management need to change as well. As noted in Chapter 3, these include the elimination of public sector deficits and the correction of overvalued exchange rates.

a. Financial Rehabilitation

The objective of financial rehabilitation is to restructure each institution so that it has a higher level of capital, qualified staff to monitor its operations effectively, and a system of risk accounting subject to regular outside supervision (Corrigan 1990; Mikadashi 1990). A rehabilitation program needs to cover issues of timing, the costs of rehabilitation, strengthening the capacity of the staff who will operate the institution, and complementary policy changes.

The Timing of Rehabilitation: To prevent further losses, the rehabilitation of financially stressed and bankrupt organizations should begin as soon as possible. Indeed, a major objective of financial reform is to minimize the losses associated with the continued operation of insolvent banks. The major risk is that manager may try to recoup their losses through increasingly riskier operations, as Jordan (1998) found regarding failed banks in the United States. Some banks must be closed or merged. Others need to be re-capitalized after taking full account of their losses.

In practice, rehabilitation is often delayed. This invariably increases the ultimate costs involved. In the US, it was known for years that the savings and loan enterprises were in deep trouble. Congress and various regulatory agencies took small steps to rehabilitate failing institutions in the hope that the situation would not unravel (Karekan 1983; Dotsey and Kuprianov 1990; Mayer *et al.* 1990). Eventually, the Resolution Trust Company was formed and bore the cost (well in excess of US\$100 billion) needed to sort out the mess.

One reason for delay is that governments are under pressure not to increase expenditure. Financial reform in Ghana and Senegal was delayed for several years largely because the respective

governments were unable to raise the money needed for the endeavor (Duesenberry *et al.* 1992). Another reason is strategic. Financial reform continues to be deflected by individuals and firms who are heavily indebted to the banks, those with special access to loans and foreign exchange, and senior bank officials who are not eager to reveal the full extent of the bank's financial losses.⁴

Because some delay is inevitable, the central bank and/or ministry of finance should devise a scheme whereby the activities of defunct financial institutions are prevented from doing any more damage. There are a number of approaches. One is for the central bank to issue a "cease and desist" order. This order may prohibit further lending to particular entities or activities or, it might limit new lending to the amounts of old debt collected. Another approach is strict limits on lending and foreign exchange exposure. These are common for countries with donor-supported structural adjustment programs. Such a scheme has drawbacks primarily because it may not be possible to prevent further financial damage. This has been a major problem in Zambia, where the largest enterprise, the Zambia Consolidated Copper Mines was incurring large losses before its sale in early 2000. These arrears have had major knock-on effects that are leading to bankruptcies in other enterprises. Moreover, such controls divert attention from the urgency of achieving financial reform and increase the time needed to reduce the financial imbalances within the economy.⁵

The Costs of Financial Rehabilitation: Non-performing loans create losses that are manifest through the dissipation of wealth and misallocation of real resources. These losses cannot be recouped. In dealing with the costs of rehabilitation the main issues are to determine how depositors' claims against insolvent financial institutions will be met and how the losses will be distributed.

The financial costs of rehabilitation can be met through:

- depositors and/or bank creditors,
- government transfers from the budget,
- government borrowing from the central bank and/or the non-bank public,
- counterpart funds generated through donor assistance, or
- direct donor support.

Forcing depositors and/or creditors to absorb the losses from failed financial institutions is not common in African countries. Most governments have implicitly guaranteed all deposits. The banks in the deepest trouble are usually state-owned. Their largest depositors are often state-owned and their largest creditor is usually the central bank. Default would simply push the problem back one level. Moreover, default by state-owned banks would have political repercussions. It could result in inquiries that would reveal mismanagement and fraud by government officials and their associates. A fourth consideration is that having creditors/depositors absorb the loss would be deflationary, more so if those losses were to cascade.

Budget transfers to pay for financial rehabilitation can be a major burden, particularly when pressures exist to increase expenditures on other items while reducing the budget deficit. Governments operating under strict expenditure guidelines as part of an IMF adjustment program usually cannot raise the funds needed for rehabilitation of the financial system.

Yet, some charges against the budget are legitimate and should be met. These include capital calls for institutions owned by the government, payments for technical assistance involved in the restructuring, and the costs of honoring government guarantees. Although these charges are often high, an attempt should be made to meet them especially if the government is seeking to re-establish financial discipline. Financial reform cannot succeed if the government itself is not accountable for its financial excesses. In this regard, attempts at debt restructuring undertaken by the governments of Senegal and The Gambia were serious attempts to re-establish their credibility as guarantors and shareholders (McPherson and Radelet 1995).

Government borrowing to pay for rehabilitation shifts the cost to the future taxpayers who wind up servicing the debt. Ghana funded some of its rehabilitation program this way (Younger 1992). This approach, however, tends to add pressure to already overextended capital markets.⁶

Counterpart funds are generated when the donors provide balance of payments support (in cash or kind) which is sold with the cash going to the government, the commodities to the public. Governments often set aside these funds to help reduce pressure on domestic prices and the exchange rate. Counterpart funds provide a convenient means of straightening out the public sector's assets and liabilities through inter-agency transfers. A common situation is that a SOE may owe large amounts to the central bank due to overdraft lending or refinancing. The government can repay these debts through the transfer of its counterpart funds. Since the transfer remains entirely within the central bank, there is no monetary effect. There is, however, a positive financial impact since the transfers raise the net worth of the SOE. An example is The Gambia Produce Marketing Board (GPMB). In 1988, the government used its counterpart balances at the central bank to retire D130.2 million (approximately 12% of GDP) of the GPMB's accumulated overdraft and provide support to cover anticipated operating losses. The net impact on the money supply and volume of outstanding credit was zero. However, GPMB's net worth improved markedly (McPherson and Radelet 1995).

The government can also use counterpart funds to retire any non-performing private debt held by financial institutions. Such transactions have a positive monetary effect. Indeed, the monetary impact is the same as if the central bank advanced finance to the government to make the payment.

Donors are an important source of funds for financial rehabilitation. Their assistance is popular in this area. It provides direct relief to the budget, avoids additional domestic borrowing, and saves the political embarrassment of closing bankrupt institutions. Donor support for financial rehabilitation across Africa has been widespread, generous, and frequently unsuccessful. For example, repeated efforts over many years in were never able to have the Development Bank of Zambia approach viability. The loans were politically motivated, debt recovery was indifferent and managerial accountability was minimal.⁸

Such assistance can (and does) have adverse incentive effects. Government officials and the management of the organizations being restructured come to expect that since the donors have bailed them out once they will find it difficult to refuse a second bailout, or even a third. Donors have attempted to deflate these expectations by making their support for these activities conditional on the appointment of new managers, improvements in staff capacity, and stricter standards of supervision.

Building Staff Capacity: If financial institutions are restructured, a major effort will be needed to prevent them from relapsing into insolvency. This will require fundamental modifications of the staffing and operating procedures of the organization. Above all, the new managers must be competent, honest, and free from government influence.

Financial rehabilitation should only proceed if clear goals about the future operations of each organization have been established. The most important goal for the restructured entity is that it operates as a business (Youngblood 1982). If this is not the government's intention, the entity should be closed to prevent further losses. There are more efficient, sustainable ways of providing subsidies to preferred sectors or activities. Furthermore, without clear market-oriented standards by which to judge the performance of the financial institution and its management, the government and (possibly) donors will face yet another round of rehabilitation in the not-too-distant future.

For the restructured institution to operate on a commercial basis, improving the quality of its staff is critical (Duesenberry *et al.* 1992). Specific attention should be given to the ability of the staff to evaluate loan proposals, plan the investment portfolio, and manage the risks (interest rate, foreign exchange, and loan concentration) to which the institution is exposed. Accurate, timely accounts are essential, costs have to be controlled, and the organization's operations have to conform with the relevant laws and regulations. Conflicts of interest have to be avoided. Finally, the organization has to ensure that its financial instruments are secure, liquid, and offer attractive risk-adjusted returns.

Finding qualified financial managers and training the necessary staff is not easy. Until sufficient numbers of staff become available, it may be useful to seek technical assistance from the donors or to establish a system of management contracts with internationally reputable firms.

Actions to Complement Financial Reform: Successful financial rehabilitation requires a range of supporting government activities and policies. The legal system often makes it difficult and costly to enforce contracts. Government-mandated staffing patterns and conditions prevent merit-based appointments and promotions. The rapid liberalization of interest rates distorts the yield profile of financial portfolios creating financial stress for enterprises that are heavily indebted. Central bank lending frequently adds to inflationary pressure. And, exchange rate policy often encourages asset holders to shift out of domestic financial assets.

In many countries, a special effort has also been needed to disentangle the interlocking debts between government and public enterprises. While these debts have serious financial consequences, they often reflect deeper deficiencies such as poor budget discipline in the public sector, government interference in the management of public enterprises, and opportunistic and corrupt managers in the public enterprises. The interlocking debts also arise as part of the government's attempt to disguise the size of its fiscal deficit from the donor community (McPherson and Radelet 1995). Unraveling these debts is essential if financial reform is to proceed and be sustained. It is also a requirement if the enterprise is to be privatized.

b. Improving Financial Markets

Once progress on rehabilitating the financial sector is underway, the government and central bank can begin to focus on encouraging the expansion of financial markets, i.e., the markets in which financial assets and liabilities are traded. These markets coordinate the demand for and supply of financial instruments. In the process they serve several useful functions (Johnson 1967; Drake 1977; Meier 1983; Kaufman 1989; Goodhart 1993). In particular, they:

- ration finance according to the borrower's willingness to pay,
- allocate finance to its most productive use(s),
- allocate demand among financial instruments,
- stimulate the release of real savings in financial form,
- reward the factors employed in financial intermediation,
- provide incentives for the expansion of the financial sector,
- provide a basis for evaluating risk, and
- ♦ transform risks over time.

In macroeconomic terms, the resource costs of establishing and operating financial markets are generally low. Furthermore, when seen in input-output terms, the financial sector absorbs relatively few resources (Leontief 1966; Goldsmith 1969; White 1993). With such potential benefits and low costs, why has financial development been so limited across Africa? The answer hinges primarily on the concepts of market and non-market failures.

Market Failures and the Non-Existence of Markets: The low resource cost of establishing and operating financial markets is only one consideration. Numerous other supporting arrangements are needed to generate and maintain the confidence for financial markets to expand and flourish (Maroni 1978; Kitchen 1986; White 1993). These arrangements have often been overlooked (or underestimated) with the result that much of the effort devoted to establishing financial markets in Africa has been ineffective. An example is the stock exchange in Nigeria. Its existence has done little to mobilize resources or improve liquidity (CBN 1979, 1990; AfDB 1997).

A widely held view of why financial markets perform poorly is that the financial systems are fragmented and highly repressed (Shaw 1973; Von Pischke *et al.* 1983; Fry 1988; Von Pischke 1991). Indeed, the repression of formal markets through interest rate regulation and credit subsidies has forced a large amount of financial activity into informal markets. Fragmentation reflects price and quantity distortions associated with taxes, subsidies, quotas, non-competitive behavior, technical barriers to entry, factor immobility, search costs, and informational asymmetries. Market failures in the financial system are also attributed to externalities, increasing returns, public goods, and gross inequities in the distribution of income (Johnson 1967; Meier 1983; Swinburne 1989; Wolf 1990; Killick 1991). Finally, corruption, opportunism, and "regulatory capture" also adversely affect the operation of financial markets.

There is abundant evidence of these problems across Africa. Most countries have only a few banks, insurance companies, or leasing companies. In most rural areas, technical and institutional barriers to entry inhibit financial activity. Financial flows tend to be asymmetric. Finance typically flows

more readily from the rural areas to the urban areas, rather than the reverse. Finance also flows out of the country more readily than in.

Search costs and informational asymmetries constrain the operation of existing markets and the evolution of potentially useful markets. There are two difficulties: (i) competitive prices do not provide all the relevant information needed by market participants; and (ii) the relevant information needed to "make a market" is dispersed and costly to assemble.

The informational inadequacies of competitive prices are well known. The key point is that even in competitive markets, buyers and sellers have to engage in some price search. Similarly, it has been well understood that because the information needed to make a market is dispersed among a large number of individuals, coordination costs may be prohibitive (Hayek 1945). In both cases, the high costs may destroy a market or prevent one from emerging.¹⁰

Commodity dealers and financial intermediaries help reduce these costs. Yet, in practice, there may be little role for them because the spreads that can be earned from intermediation are too low relative to the costs and risks involved. Moreover, in a poorly developed financial system, intermediation costs are high because of limited competition and the concentration of loan portfolios (de Rezende Rocha 1986). Both formal and informal users of financial services bear these costs. The volumes traded tend to be too small for financial institutions to gain from scale economies. Moreover, central bank action often inhibits those transactions. For instance, by rediscounting government debt at or close to par, the central bank leaves no margin for secondary market activity. Finally, the problems of corruption and opportunism (of which, "regulatory capture" is a specific example)¹¹ undermine financial markets through the erosion of debtor morality, the non-enforcement of contracts, and fraud.

Non-Market Failures A common method of addressing the problems of market failure is government intervention. The typical justification is welfare grounds. Indeed, a basic presumption of welfare economics is that government intervention is necessary to correct market deficiencies.

Government intervention of some form in the banking system occurs in all countries. Controls on banking typically include reserve requirements, minimum capital standards, restrictions on specific lending and underwriting activities, and limits on the concentration of bank ownership. These controls have rested on two considerations. One is the safety and security of the banking system itself. Banks are so highly leveraged with respect to their capital that regulation is deemed to be indispensable in order to limit the associated risk. The other consideration is macroeconomic stability. Since banks operate on fractional reserves, direct or indirect controls are deemed necessary to limit the degree to which banks can expand credit (Wyplosz 1998).

Restrictions have also been imposed on financial institutions for other reasons. Governments have sought to use finance and/or credit as a means of promoting enterprise, stimulating the savings habit, encouraging financial investment, developing priority sectors, and supporting special groups such as farmers (Jucker-Fleetwood 1964; Bhatt 1974; Furness 1975; Newlyn 1977; Drake 1980; Adams and Von Pischke 1984).

Frequently, however, the various controls and directives have produced "non-market failures" (Wolf 1979; World Bank 1989; Killick 1991). One problem is that governments have focused almost entirely on "supply-leading finance"—concentrating on the supply of financial institutions to the exclusion of concern about their operation. Their primary concern has been to create institutions and financial instruments. Whether these instruments and other services would be demanded at levels that allow the institutions to operate profitably has been generally ignored.

A second problem has been that governments view finance as both an instrument and a target. Finance is provided to support development. In turn, the amount of finance supplied is used to measure development. A third problem has been that other policies adopted by the government often undermine the financial system. For instance, in order to reduce the cost of financing the budget deficit, many governments sought to fix (or limit) the interest rate on government debt. This makes the debt unmarketable. It is held by captive institutions that have no other option. ¹²

The Development of Capital Markets: In much of Africa, most of the largest enterprises were sponsored by the State. As part of economic reform, many of them are being privatized. It is unlikely that many new state enterprises will appear for the foreseeable future. It will be necessary therefore for banks, some of which are also newly privatized, to develop their ability to deal at arm's length with those enterprises and to adapt their lending arrangements to the new circumstances. These considerations raise the issue of the potential role of debt and equity capital markets in African countries.

Although there has been considerable interest in the establishment of equity markets as well as markets for long term debt, ¹³ there will be many difficulties to overcome before efforts to develop formal capital markets can be effective in Africa. Capital market development requires a legal framework providing some basis for issuance of securities to be held by persons or organizations. Potential buyers must rely on reports of the condition and performance of any companies whose securities they might hold. They can do so only if there are legal requirements for audited reporting of the relevant facts and some arrangements to ensure enforcement of those requirements. That is, the legal framework should be in place before any public trading of securities occurs. Once that kind of framework exists, securities can be issued and traded without any special intervention by the government. Finally, it is unlikely that public security issues will have any success in countries that have not achieved a reasonable degree of price and exchange rate stability. ¹⁴

Alternative Financial Markets: While market and non-market failures account for the limited development (or absence) of inter-bank, bill and bond markets throughout Africa, they also help explain why parallel and alternative markets for selected financial instruments have emerged. The distortions associated with market and non-market failures have created opportunities for entrepreneurs to devise alternative means for matching the demand and supply for financial services and financial instruments.

Parallel or alternative markets, the most obvious of which are markets in foreign exchange, have flourished in many African countries, often because of financial controls. The success of these parallel arrangements is direct evidence that Africa can and would deepen financially if the appropriate policies were implemented. The basic requirements are incentives for mutually

beneficial exchanges and the means for making the relevant information available to market participants. Furthermore, the success of parallel (and other informal) financial markets contradicts the "supply-leading finance" thesis that has been at the base of most official thinking about financial development in Africa. No one created these markets in the hope of finding customers. The excess supply of, and demand for, financial assets arose because of the economic imbalances in the formal financial system. These provided opportunities for market makers to earn a return over their costs after allowing for the perceived risks.

In the foreign exchange market, incentives were created by the unwillingness of governments to adopt a realistic exchange rate policy. Over time, the distortions associated with fixed exchange rates, capital controls, and high rates of domestic inflation increased the premium for foreign exchange. Market makers took advantage of the opportunities that the lack of adjustment created. They minimized their information requirements by confining their operations to the spot market.

Although small relative to the foreign exchange markets, several other alternative financial channels have emerged (Hugon 1989). In some countries (Malawi and Nigeria are examples) there has been some growth in private placements. Insurance companies have helped mediate some of these transactions (Bolnick 1992). Nigeria has had a large number of finance houses operating on the fringe of the formal sector. They mobilize wholesale deposits (some of which come from the commercial banks) and lend to selected customers at attractive interest rates beyond the control and direct scrutiny of the central bank.

c. Increasing Financial Competition

A competitive market is characterized by many fully informed buyers and sellers of homogeneous products operating in a setting in which there is freedom of entry and mobility of factors. The conditions that sustain such markets, however, will only emerge if a supportive economic, political, social, and institutional setting exist.¹⁵

Many of the large financial markets in developed countries approximate this idealized model. Examples are the market for Federal Funds in the United States, the foreign exchange markets in New York and London, the government bond and bill markets in the US and UK. None of the financial markets in Africa approaches the ideal and many potentially useful financial markets simply do not exist.

Some progress is being made. Financial competition has increased as a result of structural reform. More countries have moved to the indirect management of their monetary systems. These have involved a host of measures that expand financial markets. Furthermore, some improvements have been forced on African countries through the pressures arising in global financial markets. Finally, progress has been made to require State-owned financial institutions to operate on a commercial basis. To do this, they have had to improve their competitiveness.

All of these developments have been encouraging, but the most important has been the greater use of indirect controls. Their operation directly depends on competition; their use, in turn, stimulates competition (Harrington 1974). Under a system of indirect control, banks compete for deposits in order to finance their loans. The total level of deposits is determined by the central

bank through its reserve operations. Typically, the flow of funds through any individual bank during a specified period, e.g. a month, week, or day, is uneven. In a fully integrated, competitive financial market where information is readily available, banks with surplus reserves will have an incentive to sell them to banks requiring reserves to satisfy the demand for loans. Individual banks also may try to increase their share of deposits by offering higher interest rates. Due to competitive pressures, these offers will reflect the prospective return on assets less operating costs and a normal risk-adjusted return to capital (Cook and Rowe 1986; Goodhart 1989; Meek 1990).

Inter-bank and short-term securities markets play an important role in the competitive process. When access to the central bank's discount window or refinancing facility is restricted, commercial banks use these markets to adjust their reserve positions. Since all banks have the opportunity to buy or sell reserves, the cost of funds established in these markets provides a uniform basis for setting loan and deposit rates. Thus, the existence of broad markets in short-term securities and inter-bank loans leads to more effective competition in deposit and loan markets. At the same time, the existence of competition allows the central bank to enter the markets to expand or contract the supply of reserves without concerning itself with the effects of its actions on particular banks.

International factors have been accelerating the opening up and the increasing competition of financial systems. As described below, currency substitution and the use of offshore financial intermediaries have placed relatively strict limits on the central bank's discretion over domestic monetary policy.

Viewed in historical context, this outcome is ironic. A principal rationale for establishing a central bank in most African countries was to provide the authorities with the independence to take the financial measures needed to promote economic development (Abdel-Salam 1970; Furness 1975; Bajo 1978; Onoh 1982). However, the lesson of these decades has been that the scope for independent monetary action that has a constructive impact has been severely limited. Attempts to stimulate growth using cheap credit have created inflation, balance of payments deficits, and mounting debt. This has occurred whether countries have had fixed or floating exchange rate regimes.

Another outcome has been that, in an international setting subject to rapid financial innovation, small, trade-dependent countries have few options for discretionary financial policies. By failing to recognize this, many African central banks have pursued policies related to interest rates and exchange rates that were inconsistent and therefore unsustainable.

The genie has been out of the bottle for some time now. Formerly, the systems of capital controls and directed credit provided some degree of financial insulation to local financial institutions. Under present conditions, very little insulation remains and the local market niches that once provided established formal sector institutions with safe, profitable opportunities have diminished. Financial institutions have found that their scope for non-competitive behavior has narrowed substantially. Similarly, central banks and governments have found that imprudent economic policies cannot be sustained.

d. Improving Financial Supervision

The difficulties and high costs of banking debacles worldwide provide useful lessons for other countries, particularly in Africa. One important lesson of these experiences is that the effort to deregulate and liberalize the financial system exposes financial institutions to increased risks. Without appropriate supervision to minimize questionable financial practices, prevent excessive portfolio concentration, and deter fraud, the prospects of financial failure increase sharply. These faults were illustrated, in dramatic fashion, by the Asian financial meltdown in 1997 and 1998 (Radelet and Sachs 1998; Krugman 1998) and subsequent problems in Russia in 1998. Many of the financial problems in Japan during the 1990s can be traced to weak financial supervision and regulatory indulgence (Federal Reserve sourcexx). These lessons need to be heeded by other developing countries where financial supervision has often been weak (World Bank 1989).

Bank supervision has been particularly ineffective in most African countries. Few government-owned banks have been supervised in any meaningful sense. The operations of most foreign-owned banks are more strictly supervised by their respective head offices overseas. Central banks generally lack competent staff to undertake supervision. Moreover, most bank inspections have been irregular and incomplete. And, even when problems are correctly identified, governments have frequently intervened to prevent remedial action, especially when the banks involved have been state-owned. This was the case in The Gambia during the 1980s when staff of the Central Bank of The Gambia had undertaken relatively thorough and detailed reviews of The Gambia Commercial Development Bank to identify the main problems facing that bank. Senior officials in the Central Bank failed to carry the matter further (McPherson and Radelet 1995).

Improving supervision will be time-consuming and difficult. Several areas need attention to ensure the safety and soundness of financial institutions and to ensure that the relevant information is assembled and analyzed (White 1990; BIS 1997). First, the regulations and laws that already exist related to financial institutions have to be enforced. Second, the staff required for regular inspections and audits of financial institutions has to be better trained. Third, government interference in the operations of State-owned financial enterprises has to cease. And fourth, the central bank has to develop a strategy for the appropriate use of its own support. In particular, its own lending has to be rationalized and, in most cases, sharply reduced.

The enforcement of existing regulations and statutory provisions rather than the introduction of new rules should be a priority. The history of the non-use and outright abuse of central banks' regulatory powers throughout Africa has generated widespread contempt and disregard for financial regulations. Perhaps most important among these would be the penalty provisions for breaching reserve ratios (even when these are zero); restrictions on bank officers borrowing from their own banks; capital adequacy provisions; reporting requirements; loan loss coverage; asset concentration limits; and the restrictions on permissible banking activities (Dale 1984; Mikdashi 1990; Bench 1990; Polizatto 1990).

Developing adequate capacity in bank supervision is difficult for any central bank. Nonetheless, the lack of supervisory capacity exacerbates the staffing weaknesses. Many financial institutions are now in trouble precisely because they were poorly supervised. Dealing with the situation

requires more intensive oversight of the supervisors and other central bank (and ministry of finance) staff. This often leaves little time for detailed attention to the problems of financial reform.¹⁶

Systems of Financial Supervision: A common scheme used by bank supervisors is the CAMEL system (FRBSF 1990; BISxxxx; and others). Banks are ranked according to their capital adequacy, asset quality, strength of management, earnings, and liquidity. Since capital is a financial institution's ultimate defense against misfortune, an adequate level of capital (and reserves) is a key measure of soundness of a financial institution (Pozdena 1991). A problem has been that the accepted standards of capital adequacy have changed over time, especially as the safety net of bank regulation and deposit insurance has been expanded. To illustrate, in 1840 banks in the United States held an average of 50 percent of equity capital against total assets. By 1890, the average had fallen to 25 percent and by 1990, it was only 6 percent.¹⁷

Such a level was widely seen as being too low in view of the broader range of risks assumed by banks (especially in the off-balance-sheet holdings) and the potential costs of failure. The ratio was able to fall so sharply because of the explicit and implicit insurance provided by central banks and governments. Pozdena (1991) showed that prior to the introduction of deposit insurance in the US, banks regularly held between 12 and 15 percent of their assets as capital. Following the introduction of insurance, the ratio fell to an average of 5.5 percent. In effect, deposit insurance substituted for bank capital. For many governments, the contingent liabilities associated with insuring the financial system have become too high. Since 1988, a series of international initiatives has been underway to require banks and other financial institutions to increase their capital (BIS 1988). An agreement sponsored by the Bank for International Settlements required all banks in the industrial countries to adopt new risk-based capital requirements from January 1993. These standards were recently reviewed and revised (BIS 1999).

Many banks in Africa have been slow to comply with these standards. More importantly, many central banks have been unable to ensure that the banks they supervise are in compliance. The collapse of Meridien BIAO in Zambia in March 1995 provides an example. It was well known to the Bank of Zambia that this commercial bank had an exceedingly weak capital base. A story in *Euromoney* in September 1994 had raised a number of questions about the financial condition of the Meridien group. The Bank of Zambia took no actions to bring the bank into compliance. A silent run began soon after the appearance of the article. This turned into a panic in February 1995. Because of the potential systemic risks, the Government of Zambia provided support to Meridien in March 1995. This proved to be a holding action only and the bank was put into receivership in May 1995. The cost of the official support was on the order of 3 percent of GDP.

Asset quality has numerous dimensions. The most obvious are the inherent productivity of the activity for which the loan was made, the collateral and guarantees provided, and the enforceability of contracts. Most African banks, whether private or state-owned, have found that new activities (defined as lending outside their traditional lines of business) are extremely risky; that few contracts are enforceable, particularly if they are long term; and that the collateral offered has limited value, even when it is a government guarantee. ¹⁸ Investment monitoring services such as the *Africa Investment Monitor* regularly provide "indicative prices for African

debt trading." These show that most debts of African countries that enter the secondary market trade at steep discounts. As a result, most bank lending is short-term; fully secured by goods-intransit, compensating balances, or other liquid assets; and concentrated in traditional activities (such as trade, construction, or personal loans). Furthermore, as noted above, credit is rarely (if ever) rationed by the interest rate alone. Most banks lend to established customers.

The strength of management is crucial to the integrity of the financial system. Indeed, at one level the CAMEL index itself is a measure of how a financial institution is managed. For instance, a well-managed bank will have adequate capital, high quality assets, a solid earnings performance, and maintain access to liquid assets. There are, however, other aspects of management which bank examiners attempt to determine. These relate to the general engagement of the bank's management and its board of directors in its operations. No financial institution is immune from mistakes, fraud, and losses. ¹⁹ The key issues, however, are how the bank's management responds, what controls exist to detect problems before they snowball, and what strategies exist to work out the difficulties the bank encounters. Weak managers tend to dither without addressing the main problems²⁰.

There is wide empirical support for this view. Studies of the difficulties experienced by the US financial system in the 1980s have highlighted the problems posed by indifferent management. For instance, while all agricultural banks were subject to the same systemic risks (the collapse of land values, declining farm income, and low agricultural prices) only specific agricultural banks failed (Belongnia and Gilbert 1990). Typically, these had experienced rapid growth, their portfolios were highly concentrated, their boards of directors were somnolent, fraud and officer misconduct were prevalent, and their loans/assets ratios were high relative to industry standards. In a word, they had been poorly managed A more general study of bank failure in the US concluded that the principal causes of failure had been poor management and fraud (Demirguc-Kunt 1989). Seballos and Thompson (1990) identified regional issues, management and fraud as the key factors responsible for bank failure. They noted that between 1980 and 1987, fraud was associated with 35 percent of all bank failures in the US.

Earnings are an important performance criterion because they provide the opportunity for the bank to attract additional capital or to strengthen its capital base through the retention of profits. Empirical studies show that bank failures are highly correlated with the deterioration of earnings (Demirguc-Kunt 1989). Research on the banking systems in Senegal, Ghana, The Gambia, and Nigeria reinforces this finding (Duesenberry and McPherson 1992). In Malawi, the difficulties experienced by the Commercial and National banks in the mid-1980s had a major impact on their earnings (Bolnick 1990).

The final element in the CAMEL system, liquidity, is crucial when the bank's portfolio is subject to shocks. Under normal banking conditions with regular flows of deposits, loan repayments, and asset recovery, most banks are sufficiently liquid to meet the normal pattern of withdrawals. However, when there are unexpectedly large withdrawals, a well-managed bank will usually have some high quality short-term assets that can be sold or rediscounted.

Under most circumstances, these (so-called) secondary reserves provide adequate liquidity. Problems arise with institutions where the maturity structure of their assets and liabilities is

mismatched and the quality of their assets is poor. The State-owned banks in The Gambia, Senegal and Tanzania, for example, all had portfolios in which the maturity of assets and liabilities was seriously mismatched. Many of their long-term development loans were financed by deposits and short-term accommodation from the central bank.

4. Special Concerns

The relative success of financial reform and the rapidity with which disrupted financial systems begin to deepen again depends largely on the success governments have in re-establishing confidence in local financial instruments. Capital flight and currency substitution reflect a widespread lack of confidence. Special measures are required to stem and ultimately reverse these developments. Below we discuss how this can be achieved. Our particular approach is to develop deposit insurance. Another is to deal systematically, quickly, and transparently with financial disruption. This, too, is examined.

a. Capital Flows and Currency Substitution

We know from the IMF data and other sources that Africans hold large deposits abroad. The IMF data, of course, only provide a partial accounting of the resources Africans have transferred offshore. Those investments represent African savings that might have been usefully invested in Africa. Any African country which can make investment conditions attractive enough to induce its own citizens to repatriate their wealth will increase significantly its rate of investment and its growth rate. This is also the essential first step in attracting foreign investment.

Large-scale holdings of foreign currency deposits pose an additional problem for central banks throughout Africa. The deposits can be transferred between residents of African countries in place of transfers of local currency. They therefore weaken the local central bank's capacity to affect the level of economic activity. Any effort by the central bank to reduce the growth of nominal GDP by checking the growth of the money supply and bank credit is likely to be (partially) frustrated when higher interest rates or tighter credit rationing induce those who hold offshore accounts to use them for local transactions. They may pay for goods and services or lend their funds to others.

The capital flight and currency substitution experienced in African countries has typically been in response to the government's over-extended attempts to control large parts of the economy. As a means of defending themselves against the loss of wealth associated with high inflation, low and controlled yields on formal financial assets, and the distortions created by other restrictions (such as export and import licensing) local asset holders began moving their resources into alternative assets. One of these was foreign exchange. Despite what in technical terms were strict exchange controls, most people who were determined to make the conversion did so. That process became increasingly easy as the 1980s progressed. Indeed, since the mid-1980s at least, most African asset holders have found that it is more convenient to operate accounts abroad than locally.

These circumstances pose a number of important challenges to policy makers in African countries seeking to promote financial reform. For a start, no amount of hand-wringing can reverse the processes and implications of globalization. Thus, the lament by some of the international agencies and academic economists that globalization has gone too far misses the point. The problem is generating the type of reforms in developing countries that would allow them to take full advantage of financial globalization. None of the countries in Africa (including South Africa) is large enough to influence the process of globalization. Any strategy they devise will have to take into account the various dimensions constraining their capacity to formulate and implement independent financial policy.

The question then is how should African countries structure their processes of financial reform in order to take advantage of the opportunities provided by globalization. A key element of this is exchange rate management. No African country can hope to maintain a fixed exchange rate over an extended period, especially if it lacks extraordinary support that, even in the case of the franc zone, was not sustained.²²

A second, equally important point is that if African financial institutions are to expand in ways that deepen their financial systems, they have to be willing to compete with the services available and at yields applicable elsewhere in the global financial network. This means that any quasi-rent earned on financial services within an African country will arise from local circumstances alone. Any attempt by local institutions to achieve some element of monopoly power will not succeed. Locally based large asset holders can too readily take advantage of financial services in global markets.

A third point is the need to restructure the approach to financial management by the central bank. In this regard, many of the arguments about the impact of non-bank financial institutions on monetary policy that were common in developed countries in the late 1950s directly carry over to Africa (Gurley and Shaw 1956, 1967). Globalization and financial innovation provide many new opportunities for all African countries. They also require policy makers to appreciate better the restrictions under which they can formulate their financial and monetary policies.

A fourth factor is that the government's approach to the budget will have to change. Typically African governments determine their financial requirements by starting with an examination of government revenue and expenditure, move to the deficit, and then to the finance required. Globalization requires that the procedure be worked in reverse from financing back to sustainable levels of expenditure. If (non-inflationary) financing is inadequate local expenditure and revenue need to adjust.

b. Deposit Insurance

For nearly fifty years after its introduction in the United States, deposit insurance was credited with preventing the banking panics that had plagued the American economy in earlier times. European union members now require deposit insurance. More recently the moral hazard created by under-priced deposit insurance has been blamed for the costly banking problems of the 1980s. Many economists have advocated drastic limitations on deposit insurance coverage. That view has been modified somewhat over time partly because some improvements have been made to

the existing deposit insurance system. It has also changed in part because the efficacy of surveillance of banks by depositors is difficult (because of coordination problems and information asymmetries).²³

The benefits of deposit insurance as a means of preventing banking panics are purchased at the costs of reduced depositor surveillance and its impact on risk-taking by banks. At least some uninsured depositors with large accounts do appear to respond to indications of distress in their bank, moving deposits or staying only if the bank pays a premium interest rate. It is not clear, however, what effect their actions have on management especially since the actions that are creating problems for the bank have already occurred.

Given the need for surveillance and the limited value of depositor action it may be desirable to seek other sources of private surveillance. Banks may be required to obtain part of their capital by marketable subordinated debentures or by subordinated short-term notes. Falling prices or under-subscribed issues of capital notes should be a signal of problems to which management and supervisors can respond.

For depositors with small accounts, the benefits of deposit insurance seem clear enough, at least in principle. Small depositors can be severely injured if their bank fails. Some may lose a major part of their assets – funds that are being accumulated for education purposes, retirement, the purchase of a home, or for contingencies. For others the failure may create a serious liquidity problem even if their ultimate loss is not so serious. Moreover, when the failed bank has a large share of the deposits in a particular location or activity, the "knock on" effects may cause serious losses to persons or firms not directly involved.²⁴

Most of those costs can be eliminated by insurance covering small accounts. Insuring them would not have a significant effect on depositor surveillance simply because holders of small accounts do not often attempt to judge the safety and soundness of their banks. When they do it is usually too late to have any effect on managerial behavior. Providing protection for small accounts with most of the cost covered by insurance premiums is a service much appreciated by the beneficiaries and one which provides significant positive externalities.

Insurance coverage for large accounts is a somewhat different matter. Holders of large accounts may be capable of exercising some surveillance of their banks and can readily move their accounts if they perceive any rise in the risk of failure (unless their borrowing depends on a well-established connection with the bank). It is doubtful, however, whether depositors can act in a timely fashion to influence bank management. In practice, most countries limit formal insurance to moderate levels but often act to protect uninsured depositors because of concern for the macroeconomic effects of large uninsured losses.

c. Failure Resolution

In resolving bank failures, governments face three problems. The failing bank may be liquidated, merged with another bank, or re-capitalized (usually at government expense and often with a change of management). For reasons given below, liquidation of failed banks is likely to be

unattractive if other alternatives are available. If effective new management is available, considerations of competition will favor re-capitalization over merger.

Banking authorities in the U.S. have wrestled for years with the "too-big-too-fail" (TBTF) problem. Congress has required the Federal Deposit Insurance Corporation (FDIC) to resolve failures in the cheapest way possible. This limits the use of the agency's funds to avert losses to uninsured depositors by financing mergers of failed banks with solvent ones. Since the cost criterion is not readily testable, the Congress has required the insuring agency to obtain the approval of the Federal Reserve Board and the Secretary of the Treasury before merging rather than liquidating large failed banks.

These measures may lead to a marginal increase in surveillance (especially by large depositors) and thereby improve the management of risks, but some false alarms of possible failure may cause unnecessary and damaging flight by uninsured depositors. The prospective benefit from a policy which favors liquidation over mergers is very uncertain and runs the risk that losses from such a policy can outweigh the benefits.

Developing countries face even more difficult policies in resolving bank failures. Most of them have only a few banks and can ill afford to reduce bank competition or the availability of banking services. Nor can they readily arrange liquidation of bank assets or avoid bankruptcies elsewhere in the economy following the disruption of bank services. For those reasons developing country governments tend to make sometimes extraordinary efforts to preserve existing banks.

In making these changes, however, what has to be avoided is regulatory forbearance that permits an insolvent bank to continue operating with a portfolio of bad loans, often making new loans to cover unpaid interest and providing little or no effective banking intermediation. Unfortunately, that sort of indulgence by regulators has been far too common and lies at the root of many of the large banking losses that have emerged throughout Africa.

5. Concluding Observations

The process of restoring confidence in the financial system and in the central bank's capacity to undertake constructive monetary policy will be involved and time-consuming. The aim of such an effort should be to eliminate the distortions in the financial system, rehabilitate the insolvent institutions, and develop procedures to prevent the situation from recurring. Setbacks will occur. The donor community should be ready to help make a positive contribution through technical assistance and, if needed, financial resources. Technical assistance can supplement local financial reforms in areas such as the training of bank supervisors, providing managers for banks which have been rehabilitated, and specialized advice on financial markets. Technical assistance may often fill a critical gap until the local supply of competent staff increases. The financial resources provided by the donors, if effectively used, can reduce the severity of the economic adjustment required. Alternatively, they extend the time over which the adjustment can occur.²⁵

Efforts to improve financial markets need to be based on a detailed understanding of why those markets exist and function and how they can be destroyed and mal-function. As noted earlier, there is compelling evidence that when incentives exist, either as low costs or high yields, and the information requirements are not excessive, financial markets will develop. Many have developed already.

Other financial markets could easily be enhanced if the monetary authorities work in ways that foster the expansion of non-formal and informal markets. That these markets have emerged and expanded rapidly has been largely the result of the ineffectiveness of formal sector markets and organizations in providing useful financial services.

The lesson here is that the authorities have an opportunity to use the so-called "black" (or "parallel", "unofficial", or "non-formal") markets as the basis for rationalizing the financial system. Studying how these markets minimize transaction costs, reduce information asymmetries, and generate mechanisms so that debts are honored would allow the monetary authorities to identify some of the crucial factors that encourage and discourage the development of financial markets within their economy!

Yet, in order to learn from these experiences, the senior officials need to appreciate why a vibrant, expanding financial system is crucial to a growth-oriented development strategy. A deep financial system and financial stability will not guarantee rapid, sustained economic growth. But a shallow, unstable financial system will block growth, and, as the experience of Argentina and numerous other countries illustrates, lead to retrogression.

Reforming financial systems is never an easy or rapid task. For growth to proceed, it is essential that the task be undertaken and continued.

Annex: Monetary Programming and Reserve Management

The importance to financial stability of appropriate reserve management by the monetary authorities cannot be overstated. This Annex discusses how reserve management fits into the monetary programming exercise.

a. Formulating the Monetary Program

A monetary (or financial) program sets target paths for money supply and bank credit.²⁶ Such a program is needed to relate the central bank's operations to its medium term macroeconomic objectives. Formulating the program requires cooperation between the central bank and the ministry of finance to determine the implications of different combinations of fiscal and monetary policies. The existence of a program tends to limit the scope for *ad hoc* policy responses when economic circumstances change. Four steps are involved.

First, a path for nominal income must be selected. It should be one that is expected to produce an acceptable combination of real income growth and inflation without inducing unacceptable pressure on the exchange rate and sharply adding to the stock of debt.

Second, a financial plan to achieve the nominal income path is required. That plan will include target paths for the growth of bank credit and money supply taking account of the government's fiscal projections and the financing required for state-owned enterprises. Special attention has to be paid to the government's financial plans. This is where inconsistencies between fiscal and monetary policies most often arise leading to destabilizing fluctuations in interest rates and exchange rates.

Third, circumstances need to be specified that would lead to deviations from the financial program or require the formulation of a new program. Agreement between fiscal and monetary authorities on this matter will insure that the program is adhered to if the forecasts of the major aggregates remain on track.

Fourth, an implementation plan must be developed. The central bank needs to estimate the change in the monetary base implied by the financial program and then work out operational procedures for injecting or withdrawing reserve money. Several macroeconomic tools are available to policy-makers in implementing a monetary programming scheme. These are outlined below.

Nominal GDP Targets: The rate of growth of nominal GDP is simply the sum of the rate of growth of real GDP and inflation. Since variations in real output growth are usually small compared to variations in the rate of inflation, the growth of nominal GDP will usually be close to the inflation rate.²⁷ Nonetheless, it is important to distinguish between the two. Doing so focuses on the need to raise the rate of real output growth. An increase in aggregate demand can mobilize some idle resources but it will also put upward pressure on prices, especially in the non-traded goods sector. Import demand will rise as well. At the same time, measures will be needed to raise investment so as to increase potential output.

Balance of Payments: Countries that are trying to maintain a fixed nominal exchange rate must satisfy a more strict inflation constraint. Their rate of inflation cannot ordinarily exceed that of their main trading partners. Countries with a floating exchange rate are not so tightly constrained by the rate of inflation. They can achieve stability in the real exchange rate, thereby keeping their exports competitive, through depreciation of the nominal exchange rate. Yet, if they permit demand to increase too rapidly, imports will increase and the real exchange will have to depreciate (sometimes sharply) unless they are willing to borrow abroad. African countries have had enough experience with external debt to know that this is a costly and often dead-end alternative.

In practice, the increase in nominal aggregate demand will be generated by increases in exports, government expenditure, and investment with the latter two strongly influenced by monetary conditions. As expenditure in these areas increases it will raise the demand for imports and for nontradables such as construction, food, artisanal products and services. If increases in the money supply permit higher nominal demand, import demand will rise with consequent upward pressure on the exchange rate. The output response of nontradables will be positive but it may be limited by transport, energy, and other bottlenecks.

Policy makers who advocate substantially higher increases in the growth of nominal income should be challenged to show that there is enough slack to moderate the induced price increase. Since there is so much uncertainty in the making the real output response, any demand expansion involves the prospect that it will lead to an increase in inflation.

At the same time there should be some agreement on the long run significance of any increase in the inflation rate. Countries with initial inflation rates that are consistent with those of their major trading partners may be willing to take the gamble if it appears that output can be increased with a moderate rise in inflation. If, on the other hand, the initial inflation rate is well above comparable world rates, there will be significant damage from continued inflation. In that case, the appropriate question is what are the *net* costs of reducing inflation by limiting demand growth

Credit Distribution: The financial programming exercise will involve a review of the impact on the credit market of the proposed paths for monetary aggregates associated with the public sector borrowing requirement (PSBR) and movements in other non-monetary factors affecting demand. Policy makers need to be aware of the various types of expenditures that may be crowded out when total expenditure is constrained by limits on the supply of money and credit.

Under systems of indirect monetary control, to which an increasing number of African countries have moved (Duesenberry and McPherson 1992), the level of interest rates is determined by the interaction of the supply of and demand for credit. The former is determined by the reserve management operations of the central bank. The demand for credit typically depends on the risk and return assessments of private borrowers. Because of the sheer size of the public sector, the changes in the PSBR will have a significant impact on the level of interest rates. Even qualitative judgements about those effects may indicate the need to revise the fiscal program.

b. Controlling Reserves

Once a central bank has chosen a path for the growth of money supply and developed a consistent financial program, it has to control the growth of reserve money. The lag between changes in reserve money and changes in the money supply is relatively short. Therefore, the forecasting problems in reserve management operations are, in principle, far less challenging than those related to nominal income growth and money supply targets discussed above. When timely information is available, central banks can adjust reserves monthly, weekly, or even daily in order to close any gap between the money supply target and the actual money stock.

In African countries, however, there are usually long lags in the collection and processing of information on key macroeconomic variables. For that reason, central banks will often be "flying blind" as they attempt to manage reserves. They will have to base their estimates of the current situation on a combination of timely but partial information, data that are accurate but out-of-date, and signals provided by movements in variables such as interest rates and exchange rates.

A further consideration is that the central bank should conduct its own operations in ways that do not add to that volatility. Accordingly, any actions taken to affect reserve positions should be limited. This will require relatively frequent manipulations. At the same time the central bank needs to resist changing its reserve operations in response to day-by-day changes in interest rates and other indicators of credit market conditions. To satisfy these conflicting requirements, it is useful for the central bank to formulate a reserve management plan covering (say) a month.

The plan would call for a series of actions to add or withdraw reserves. It would reflect the information available at the time of its formulation as well as projections on the basis of expected changes in government or foreign accounts and agricultural and other seasonal developments. It should allow for adjustments in the plan as new information emerges. That procedure will let the financial program guide the reserve management process rather than being guided by short-term market fluctuations. Nevertheless, as already noted, when the market strongly signals some unexpected change, the financial program should be reviewed and revised.

Changes in the Money Multiplier: Implementing the monetary program requires central bank operations to control the supply of reserve money (Batten et al 1989; Goodhart 1989, Mayer et al. 1990). The supply of reserve money imposes a limit on the money supply (i.e., currency and deposits) because a certain proportion of the money supply is held in the form of currency and banks must hold a proportion of their deposits at the central bank as reserves. Yet, even if the banks are not required by law to hold reserves, they normally maintain modest reserves as working balances. The money supply is therefore a multiple of the amount of reserve money. The multiplier depends directly on the currency/deposit ratio and the reserve/deposit ratio.

The money multiplier depends on three factors. First, some of the money supply is held as currency, the demand for which is determined by the general public based on their payment practices, preferences for liquidity, the rate of inflation, expectations of exchange rate movements, and opportunities for alternative financial investments. Second, banks must hold reserves equal to a certain proportion of their deposits. To expand their loans, banks have to

acquire additional reserves. Third, for prudential purposes or because they lack attractive opportunities to expand their loans and advances, banks may choose to hold excess reserves.

There have been significant year-to-year changes in the money multipliers of African countries. Annual changes of 10 percent to 15 percent are common. For instance, over the period 1970 to 1989, the money multiplier in Malawi ranged between 1.5 and 4.4. Its average was 2.7 and its standard deviation was 0.82 (Bolnick 1990). Similar variations have been evident in other countries. Variations of this magnitude would require significant adjustments in the reserve base by the central bank simply to offset changes in the money multiplier.

When the money multiplier is stable, central bank operations to change the supply of bank reserves produce proportional changes in the money supply. Variations in the money multiplier complicate the control task. But, if the relevant data are available in a timely fashion, the central bank can ordinarily adjust its operations to offset any undesired changes in the money multiplier.

Management of Bank Reserves: Central banks in different countries use a variety of techniques to achieve their reserve objectives. To place them in context, it is useful to appreciate three problems of reserve management.

First, some factors affecting reserves cannot be controlled by the central bank. For instance, the central bank does not control the volume of currency outstanding, although its policies can influence how much currency is held. Nor does it control the volume of foreign exchange reserves though, again, its policy actions may have some effect. Finally, the central bank does not control the amount of government deposits unless there is some explicit agreement as to how they are to be managed. To prevent distortions in the programmed growth of bank reserves, the central bank will normally attempt to neutralize the effects of these factors through so-called "defensive" reserve operations.

Second, the volume of currency outstanding tends to increase with the growth of the economy. Defensive reserve operations are required to offset the loss of reserves by commercial banks when they pay out currency. Since the volume of currency is large relative to other factors affecting reserves, these defensive operations will normally create reserves.

Third, the normal expansion of an economy produces an increase in bank deposits. This will require a corresponding growth in bank reserves. To accommodate the expansion, the net change in all the factors affecting reserves will normally be positive.

These changes are typically allowed for in the central bank's day-to-day and month-to-month operations. However, when economic conditions change, there will be periods when the central bank will need to slow the pace of reserve creation, or even reverse the process.

<u>Creating Reserves:</u> There are numerous techniques for varying the volume of reserves. Some can be used to change reserves in either direction; others have an asymmetrical effect. Creating bank reserves is not difficult since the central bank can always find ways to lend money. The problem is to make it possible to limit central bank lending to the amounts required for planned reserve creation. Direct lending to the government, for example, is simple but may not be easy to control.

Accordingly, central banks usually seek lending arrangements that permit them to decide how much is to be lent. In countries with a large open market in government securities, the central bank may refrain from lending directly to the government. Government securities are acquired in the open market rather than from the Treasury. The central bank, not the Treasury, then decides how much central bank credit is extended to the government (Young 1973; Meek 1985).

The "refinancing" of particular types of loans allows the central bank to add reserves to the system without providing reserves to an individual bank. Refinancing works as follows. The central bank announces a set of preferred loan categories. It also announces that if a commercial bank makes a loan at specified interest rates to borrowers who fit these categories, the loan can be refinanced at the central bank on terms providing a margin of profit to the lender. Although the particular commercial bank making the loan will quickly lose reserves when the borrower spends the proceeds, central bank refinancing adds reserves for the banking system as a whole. The effect is the same as if the central bank had lent directly to borrowers in the preferred categories but had used the commercial bank to complete the paperwork. Because refinancing arrangements have been difficult to control, they have become increasingly less common.

Most central banks offer some sort of "discount window" facility so that individual banks with short-run liquidity problems can borrow reserves for limited periods. If the discount window is operated on a generous basis a large volume of reserves may be created.²⁹ In countries with only a few banks, extensive use of the discount window for general reserve creation makes the banking system excessively dependent on the central bank and relieves bank managers of the responsibility for raising their own resources.

In order to limit the amount of reserves created by borrowing from the central bank, various control mechanisms have been introduced (Batten *et al.* 1989). For instance, the Bank of Italy charges discount rates which increase with the amount borrowed. This forces up market rates whenever there is a general increase in bank lending and a consequent demand for additional reserves. By contrast, the discount rate set by the Bank of Canada is always at a premium over the last treasury bill auction rate. To raise market rates the Bank withdraws reserves from the system. Commercial banks are then forced to borrow at the premium rate (Meek 1990).

A third way of limiting reserve creation is for the central bank to operate a "pseudo market" for reserve bank credit which permits commercial banks to submit bids for a share of a preannounced total of central bank loans. Such an approach allows the central bank to control both the level and cost of the additional reserves it is prepared to create.

As a means of enhancing reserve management, some central banks have also attempted to establish markets in specified private assets. One approach has been for the central bank to help develop markets for negotiable obligations of banks and to arrange to buy these obligations from the market rather than from the originating bank. "Discount Houses" have sometimes been created as intermediaries for this kind of lending. For many years, the Bank of England chose to supply funds to the market by lending to the London Discount Houses which, in turn, lent to commercial banks (Sayers 1957; Clayton *et al.* 1974).

Government deposit accounts can be used in several ways. In the United States, the Treasury and the Federal Reserve have an arrangement limiting the variation in the Treasury's accounts at Federal Reserve Banks. In Canada, by contrast, the Bank of Canada is authorized to use certain government accounts to influence bank reserves in either direction. To increase reserves, it moves funds from these accounts at the Bank of Canada to commercial banks; to reduce reserves, it reverses the operation. This arrangement cannot provide a means of dealing with the upward trend of required reserves or the reserve drain from the growth of the currency noted earlier but it is useful as a short-run adjustment device.

Removing Excess Reserves: A major transitional problem confronting African central banks is how to sterilize the excess reserves which banks are holding in ways that do not impose additional financial difficulties on either the banks or the government. Removing reserves from the system has taken many forms. The most common is open market operations in government securities. This approach works in either direction with the central bank creating reserves by buying securities and reducing reserves by selling them.

Some central banks have sold their own obligations as a means of reducing bank reserves. For instance, because the government would not issue domestic debt, Bank Indonesia had to develop a market for its own certificates. They are sold at auction in whatever amounts are required to achieve Bank Indonesia's objectives. After the initial auction commercial banks needing reserves may sell the central bank certificates to banks with excess reserves (Cole and Slade 1990, 1995).

In principle, it is not difficult to find the means of controlling reserves. The basic instruments exist, or can be readily created. The main difficulty is to achieve close day-to-day control when there are rigidities in the money market, bank reporting systems do not provide timely information, or the size of the public sector deficit results in reserve creation beyond the limits that the central bank deems prudent for monetary stability.³⁰

<u>International Financial Flows:</u> International financial flows usually have a significant influence on the control of reserves. The response of capital movements to changes in monetary policy may seriously limit a central bank's freedom to control the monetary base, monetary aggregates, or interest rates.

For countries that have no capital controls and are committed to a fixed exchange rate, capital movements are likely to be sensitive to the spread between domestic and international interest rates. The spread required to attract capital inflow will depend on local conditions such as expected and actual inflation, confidence in the stability of the exchange rate, opportunities for profitable investment, the range and attractiveness of local financial instruments, and vulnerability of the economy to external shocks. As the interest rate spread narrows, private capital outflows will tend to exceed official capital inflows. The pressure on foreign exchange reserves will intensify. This effectively imposes a lower limit on the level of local interest rates. Moreover, the central bank cannot maintain a domestic money supply in excess of the amount demanded by the public at the critical interest rate.

Countries with floating exchange rates are affected by international financial flows in a different way. Relatively high interest rates encourage capital inflow and low rates discourage it but, in

the absence of central bank intervention, capital flows mainly affect exchange rates rather than the net foreign assets of the banking system. Over time, the exchange rate adjustment should bring the flow of goods into line with capital flows. While such a response does not prevent the central bank from achieving its money supply or interest rate objectives in the short run, it does change the longer-term response of output and prices to any given monetary policy.

The monetary reforms in African countries have been encouraging the development of open financial markets, promoting competition among the banks and other financial institutions, and expanding the range of financial instruments. These changes have been linking the domestic financial markets in Africa more closely with world markets. Under these circumstances, shifts between domestic and foreign investments have become feasible for a wider range of investors. Domestic markets have become more sensitive to changes in foreign financial markets (Versluysen 1981; Lamfalussy 1985; Friedman 1999). Moreover, international financial linkages undermined the ability of the monetary authorities to maintain local interest rates below the risk-adjusted levels available abroad. Nonetheless, because of risk considerations, ³¹ perceptions of limited liquidity, and instability in the exchange rate, it has still proven difficult to attract foreign funds even at high interest rates. ³²

Even though the implications of portfolio capital movements induced by interest rate differentials have been widely discussed and studied (Johnson 1973, Fry 1988), movements induced by risk considerations have often been more important. Developing country residents have often moved very large amounts of capital in or out in response to changing perceptions of the risk of holding their assets locally.³³ The risks in question include potential capital losses due to exchange controls, devaluation, political instability, or the prospect that fiscal mismanagement will lead to accelerating inflation. The exchange market turbulence experienced in Zimbabwe since 1997has been almost entirely due to local political developments.

Once a capital flight has begun it can be checked only by decisive action that provides convincing evidence the fears that inspired the flight are no longer warranted (Kindleberger 1989; Fischer 1998). Responding to these fears imposes even stronger constraints on domestic policy than the movements of portfolio capital due to interest rate differentials (Hallwood and MacDonald 1986; Bruno 1988).

c. Practical Aspects of Reserve Management

Practical reserve management requires a continuous monitoring of the money stock and the reserve positions of the banks to provide a basis for deciding when the central bank should take action to change the level of reserve money. Once the decision is made the central bank has to be able to operate in the credit market to achieve its reserve objectives without having to consider how its operations will affect individual banks.

<u>Monitoring Reserve Money</u>. The monitoring system must be based on accurate and timely data on the central bank's own balance sheet, the reserve position of major banks, and movements in interest rates together with other indicators of "credit market conditions."

In the absence of any transit and collection items, the aggregate amount of reserve money can be calculated from the central bank balance sheet. Reserve money equals the total central bank assets less its non-monetary liabilities (foreign, government, and "other"). The remaining liabilities – currency and deposits of commercial banks at the central bank – constitute reserve money. To estimate bank reserves, it is also necessary to know the amount of currency issued by the central bank.

Central banks encounter difficulties in the monitoring process on account of expenditure reporting problems, the unwillingness of governments to provide access to particular information (e.g., security and military expenditure), and communication delays.

The gaps in data have carried over from the directed credit systems during which reserve monitoring was not a regular procedure. As a result, specific aspects of existing reporting systems may actually hinder the reserve management process. For instance, in a number of countries, advances to the government are anticipated in the budget but are not closely controlled by the ministry of finance or the central bank on a day-to-day basis.³⁴

Many government agencies draw on government accounts without any centralized or regular control (Roob 1973; Premchand, 1987). Furthermore, there can be long lags between the time different governments departments make expenditure and when the expenditure is reported. Thus, those responsible for reserve management frequently do not have an up-to-date estimate of central bank claims against the government.

Similarly, debt service data may often be inconsistent. Foreign debt service and foreign aid transactions are typically so large and so dispersed across the government bureaucracy that the net flows are only known with a wide margin of error. This shows up in the general lack of certainty about the status of the net foreign asset position of the central bank.

The residual "other liabilities less other assets" in the central bank accounts is often large and covers numerous items. Some are valuation adjustments to offset changes in the value of the central bank's foreign assets and liabilities due to past changes in the exchange rate. Others are the bookkeeping recognition of past losses on the bad debts of failed SOEs absorbed by the central bank. These "in-house" items should not create serious problems in estimating reserves. Some items in the "other" category represent the central bank's ordinary current liabilities. But, in some cases, various special arrangements with government or government agencies, such as military transactions, are charged to separate accounts summarized in this "other" category on the central bank balance sheet. Finally, of course, the effect of the central bank's profit and loss account must be reflected in changes in the net worth account.

Movements in all items of the central bank's balance sheet should be known to the senior management. Often, however, the staff members given the task of estimating the bank's reserve position are not always informed about some items in the central bank accounts. If these staff are to perform their tasks properly, senior bank management will have to work out a system which provides the relevant information in a timely fashion without revealing information considered confidential by the government.

Most of the difficulties noted above can be overcome by reorganizing the central bank's internal accounting system for the specific purpose of reserve control. Doing that will require a clear rationale for the making the necessary changes and the assignment of adequate staff to make the required changes in accounting procedures as well as the staff to effectively monitor the bank's reserve position.

The task of providing data on the reserve position of the commercial banks is complicated by communication and data processing problems in a number of ways. Banks in the larger countries have widespread branch systems. Even with the aid of regional central bank branches in most countries, the check clearing process is slow and there are long lags in the collection and transmission of other data. Some of the difficulty is the limited capacity of the communications system, data processing equipment, and the lack of properly trained staff. Investment in communications and data processing equipment will be required to provide complete and timely data.

Yet, it is not necessary to have a perfect information system to achieve effective reserve control. In most African countries a high proportion of bank activity takes place in a limited number of cities. Communications problems should not be a major problem for the banks and branches in them, although data processing may be. A system of partial reporting could speed up the assembly and transmission of data from the more distant points without requiring large investments or operating procedures. Delays in processing within the branches of commercial banks will still pose problems in obtaining accurate data on reserve positions of the banks.

Central bank officials in most African countries are aware that they have problems in obtaining timely data for reserve management. Substantial improvements often occur once they devote the time and resources to the problem. For example, in November of 1992, the Zambian Minister of Finance appointed a small team of Bank of Zambia and Ministry of Finance officials to begin the task of bringing the key budget and monetary data up to date. With the introduction of the cash budget in January 1993, this task force became the Data Monitoring Committee, which has attempted to stay on top of the data ever since.

Other countries without such systems will have to base their reserve management operations by data which have some evident deficiencies. However, if they supplement their estimates of the reserve positions of commercial banks by a continuous effort to keep in touch with market developments, any errors that arise should not cause major difficulties. Occasional special corrective actions will be needed in addition to the regular reserve control measures.

<u>Implementation</u>: Once a plan for changing the amount of reserve money is determined, it should be carried out through the regular transactions between the central bank and the government, or the central bank and commercial banks or other private sector investors. In effect, the task consists of a basic process for providing for the normal growth in the volume of reserve money (associated with the expansion of the economy) and supplementary procedures for making smaller periodic corrections. The nature of the required actions may depend on the size of the government's deficit and on changes in the balance of payments.

The limited development of bill and bond markets in African countries can often be traced to the widespread use of credit ceilings, the persistence of high rates of inflation, and a chronic oversupply of reserves. More effective markets have been emerging as inflation has been brought under control and as banks have been allowed to compete for business on both sides of the market and when excess reserves have been largely removed from the system. Even so, the development of secondary short-term security markets and inter-bank markets has been slow. Whether their development can accelerate will depend on the way the central bank operates the discount window and conducts the treasury bill auction. Unlimited access to the discount window without penalty inhibits the growth of secondary markets and inter-bank markets. The growth of the treasury bill market will be limited if banks fear that the central bank is rigging the auction in any way.³⁶

While competitive short-term markets will take time to emerge and deepen, it will still be possible to make use of treasury bill auctions in managing the supply of reserve money. The Gambia introduced a treasury bill tender system in 1986. State-owned enterprises, the commercial banks, and some individuals participated in the fortnightly tender. Beginning in September 1990 the Central Bank of The Gambia (CBG) began using the bill tender to control reserves. For some time, the government budget (including grant receipts) has been close to balance and there was also a balance of payments surplus.

The increase in The Gambia's net foreign assets provided more reserve money than was required to support the money supply targets agreed with the IMF. Enough treasury bills were tendered to absorb these excess reserves. The proceeds were credited to the government's deposit account so that net credit to government declined. This procedure worked even though there was considerable budgetary cost to the government.³⁷

When it became necessary for the CBG to inject reserve money into the market, it was simply a matter of tendering fewer bills than the amount maturing. Still larger amounts were put into the market when needed by having the CBG buy bills and debiting the government's deposit account.

The success of The Gambian system depended on the willingness of the government to pay the full cost of absorbing excess reserves through the sales of bills over an extended period.³⁸ Until that was done, the CBG could not have issued the amount of bills needed to absorb the reserves at market-clearing rates. The yield required to induce banks to buy bills has been equal to the opportunity cost of alternative loans less the differential credit risk and liquidity premium provided by the bills. As the number of participants increased and the volume of bills expanded, the central bank was able to operate on both sides of the account.

In order to keep such a system on track, it is important for central bank staff to anticipate how the treasury bill auction will perform under adverse circumstances. In particular, the staff will need to know:

• how the participants in the bill auction will react to circumstances in which a sharp rise in the bill rate will be required to clear the auction;

- whether banks will keep loan and deposit rates in line with rising bill rates or will adjust credit standards and informal rationing;
- whether and under what circumstances rising interest rates will induce local firms and individuals to repatriate funds they are holding abroad;
- what problems may develop out of bankruptcy and production cutbacks due to adverse changes in the cost and availability of working capital;
- whether the supervisory system can provide reasonable assurance that most banks will be able to experience difficulties without becoming insolvent;
- what political responses may be triggered by the effects of sharply higher interest rates; and
- if the central bank and ministry of finance will formulate fiscal and monetary policies in ways that adjust fiscal policy so that all the adjustment is not forced onto the monetary system.

The tender (or auction) technique offers a practical reserve control system for African countries that have not yet developed strong secondary markets in short-term securities. Its role will depend in part on the other factors affecting the volume of reserve money and on the initial reserve position. When there are large amounts of excess reserves outstanding, treasury bills can be sold to remove them. As the economy grows, bills can be bought back (or allowed to mature) to provide reserve money as needed. Another option may be to begin with a high reserve requirement and reduce it as the money stock grows. The first approach is costly to the government; the second is costly to the banks.

When those alternatives are not feasible, it will appear attractive to provide reserves by increasing central bank credit to the government. In principle the government can sell securities required to finance its deficit. The securities can be sold at auction or by tender and the central bank can take up enough of each issue to meet its objective for the growth of reserve money. However, the use of central bank operations in securities for treasury finance as well as for reserve control usually undermines the reserve control system. If central bank credit to the government is to be used to create reserve money that operation should be separated from other sales of securities to the banks and public. An announced program of purchases of securities for reserve creation purposes by the central bank could supply the required increase in reserves. The amounts so purchased would vary from week to week but would be pre-announced. Any remaining government security sales would be made to the public with no financial participation by the central bank.

A final consideration in reserve management is access to the discount window. Banks clearly require access to a lender of last resort facility so they can meet their reserve requirements when extreme, unexpected shifts in deposits occur. Banks more readily hold treasury bills if they know that they can be rediscounted on favorable terms and without limit. However, a wide-open discount window inhibits the growth of a secondary market for treasury securities reducing their attractiveness to those who do not have direct access to the discount window. Banks should have a well defined but limited right to use the discount window at a rate related to recent market or auction rates so that ordinary day-to-day reserve adjustments can be made without difficulty. Nonetheless, there should be a penalty rate for any borrowing in excess of some percentage of required reserves. Banks would then find it more attractive to use inter-bank trading to adjust reserves on a daily basis and participate in developing a secondary security market.

As a final consideration the adjustments referred to above relate to the limits imposed on reserve management within the context of an existing monetary program. There may, however, be situations where large deviations from the program targets occur. Under these circumstances, a change in the monetary program targets may be justified. *Ad hoc* responses to current events can be avoided if the annual program includes some specification of the circumstances under which a modification of the program would be appropriate. Those circumstances will include some recognizable change in the prospects for export revenues, in foreign aid receipts, in import prices, or in government revenue and expenditure.

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Endnotes

¹ Jones (1986) provided a fascinating study of groundnut marketing credit in The Gambia. While private credit for producers used to be common, this system was undermined by the expansion of subsidized credit from the cooperative unions. These eventually became insolvent (Demissie *et al.*1989; McPherson and Radelet 1995).

² This was demonstrated by Shipton's work in The Gambia (Shipton 1994).

³ Kenan (1978) had some perceptive observations about the sustainability of African, which, at that time, was growing rapidly. He was almost alone in raising questions about debt sustainability.

⁴ This was one reason for the delay in dealing decisively in 1994 with the collapse of Meridian/BIAO in Zambia (Hill and McPherson, this volume).

⁵ The collapse of Meridien BIAO Bank in Zambia in March 1995 is an example of widespread collateral damage. Meridien had borrowed heavily from small banks on the inter-bank market, it had attracted large amounts of deposits with the promise of high yields, and it had transferred abroad large amounts of funds borrowed in Zambia.

⁶ Government borrowing (as such) to finance rehabilitation is not the problem. At the time it is undertaken, financial rehabilitation may have a higher social pay-off than any other government expenditure. Problems arise when the borrowing is large and at a rate which creates additional strain on the financial system. In the United States, the peak operations of the Resolution Trust Company came at a time when the government was attempting to reduce its borrowing requirement.

⁷ The macroeconomic impact of counterpart funds has been keenly debated. Roemer (1989) re-examined the issue. Most disagreement centers on whether the economic effects of spending counterpart funds are different from the induced expenditures associated with *any* resource inflow from abroad. Under conditions of internal and external balance the question is moot since all spending has an equivalent marginal impact. The problem emerges only when there are imbalances. In that case, any additional government spending increases pressure on the economy.

⁸ Despite this history, President Chiluba announced in the official opening of Parliament in January 2000 that DBZ would be provided with an additional \$10 million to support its "lending" activities.

⁹ The transition economies, especially in the former Soviet Union, have had their efforts to reform seriously undermined by such interlocking debt. It also has been a major issue in attempts to sort out the knock-on effects of the Asian financial crisis.

¹⁰ The information required for the operation of a purely competitive market is daunting. To illustrate, for m buyers and n sellers to remain completely informed as the theory requires, a total of m.n + [m(m-1)+n(n-1)]/2 contacts have to be established *and* maintained. The implied information overload has been a key element in fostering specialization. Indeed, some have argued that intermediation exists largely because of the impossibility of maintaining complete information (Pyle 1971). Notwithstanding the "efficient markets" hypothesis (Fama 1970; LeRoy 1989), which treats market prices as if they contain all the information relevant to the decisions of buyers and sellers, how both groups remain informed at reasonable cost is a weakness in the main theoretical models. Neoclassical theory typically handles the issue by assuming that the necessary information materializes automatically and at no cost (Day 1976). Proponents of rational expectations make the same assumption. Friedman (1979) showed that this assumption was untenable and that it is beyond the capacity of any rational economic actor to acquire the necessary information.

¹¹ This phenomenon occurs when the institutions being regulated can exert undue influence on the regulating agency.

¹² This was a major feature of the South African economy until the mid-1990s. With the easing of capital controls, financial enterprises sought to diversify their portfolios (Stals 1998). The outcome has been that the government's persistently high deficit has been spilling over into the balance of payments, leading to a rapid rise (from a small base) in the ratio of debt to GDP in South Africa.

typical free market is centuries of patient development of property rights and other legal arrangements, and an extraordinary standardization of goods and services and the terminology for describing them.

Finally, in an excellent overview of the role of markets in development, Shaffer *et al.*.(1983) argued that the "*market is always an instrument of the political system*" (ibid.:6, italics in original).

¹³ Progress in this area was reviewed in the *African Development Report 1997* (AfDB 1997).

¹⁴ None of this has prevented many governments from seeking to establish such markets (AfDB 1997; World Bank 1998). However, none of these markets is noteworthy for its success or stability.

¹⁵ The existence of *competitive* markets cannot be taken for granted. Johnson (1967:151) noted that markets are "instruments of social and economic organization." Schelling (1978:29) made the same point when he observed that:

There are a lot of requirements for making the free market work well, or even at all.... Behind a typical free market is centuries of patient development of property rights and other legal.

¹⁶ In The Gambia, efforts to deal with the GCDB, the GPMB, the GCU and the GUC diverted a large amount of ministry of finance, central bank, and donor time to financial rehabilitation. Had GCDB's problems been dealt with in 1982 when they first became obvious, much work and perhaps as much as \$75 million (more than 50 percent of the country's annual GDP) could have been saved.

¹⁷ Hoskins (1990) reported these data which were contained in a speech by Chairman of the Federal Reserve System, Mr. Alan Greenspan.

¹⁹ This was dramatically illustrated by the collapse of Barings Bank due to losses incurred by a single unsupervised trader.

²⁰ In this respect, recent studies of the ability of regulators to predict potential difficulties with financial institutions have reinforced the usefulness of the CAMEL system. Thomson (1991) showed that the CAMEL index is an accurate predictor which provides a long lead time. He noted that the real weakness in the system was the disincentive for regulators to act in a timely fashion and *not* the deficiencies in the assessment methods being used.

²¹ There has been a lot of speculation by some of the top international specialists (Sachs, Krugman, Fischer, Summers...others) about how to handle the problems which have emerged in the international financial system. Krugman (1998), for example, suggested that it might be time to re-institute exchange controls. One need only cast our minds back to the origins of the Euro-dollar market and the development of off-shore financial centers and ponder the international reach of the largest corporations to help put such notions in their appropriate perspective.

²² The implications for the franc zone countries have been clear since the re-fixing of the CFA franc in January 1994. The arrangement will break down. The only questions are when, and what the costs will be.

²³ Advocates of "market-based" solutions to financial supervision make a valid point that the potential for depositors "voting with their feet" is a powerful force for prudent financial management. The problem with shifting to a fully market solution is that small depositors have no incentive to closely monitor the financial entities they use. Large depositors have such an incentive. They are typically the first to "jump ship." Markets do not address the issue of information asymmetry as it applies to small depositors.

²⁴ As the Government of Zambia discovered, the "knock on" effects of the problems created by ZCCM (the copper company) in the second half of the 1990s reduced its revenues, raised its debts and undermined a large number of local enterprises, including banks.

²⁵ The conditions required by the donors often provide governments with political leverage. Numerous unpopular but necessary measures can be implemented and the blame shifted to the donors. Furthermore, by agreeing to donor conditions, the government provides some assurance to the international and domestic financial communities. Such moves are intended to enhance confidence. "Tying one's hands" is frequently used (and seen) as a signal of commitment to a particular objective (Giavazzi and Pagano 1988; Dixit and Nablehuff 1989).

²⁶ The International Monetary Fund has been at the fore-front of using monetary programming techniques. Relevant references include IMF (1981) [WD articlexxx], and [Sri Lanka piecexxx..]

²⁷ That has not typically been the case in developed countries where variations in real output are significant relative to shifts in the rate of inflation (Gordon 1981).

²⁸ The central bank is in a position to refinance loans at low interest rates because it does not pay interest on its liabilities (primarily currency) but receives interest on its assets. Refinanced loans need not be subsidized, however.

²⁹ In its early years, the Federal Reserve System in the United States supplied a large proportion of bank reserves by means of the discount window (Strong 1922). The Fed now discourages excessive access by banks to this facility (Meulendyke 1990; Mayer, Duesenberry and Aliber 1990).

³⁰ Another issue that emerged in the Asian financial crisis (1997 and 1998) is that specific central banks disguised the change in reserves. Such behavior undermined confidence and intensified the turmoil.

³¹ Up to a point, rising interest rates compensate lenders for increased risk. However, beyond a certain level, higher rates compound the lender's risk because they raise the borrower's costs to levels which may trigger default. Many junk-bonds holders in the US are well aware of this phenomenon. This was also a critical problem during the Asia financial crisis. Not only had exchange rates collapsed (in Indonesia, Thailand and Korea), making foreign debt repayment more costly, but interest rates were raised to discourage capital outflow.

³² Some of the capital inflow is simply currency substitution in reverse. That is, local asset-holders, attracted by high real interest rates, cash in their foreign exchange and buy local securities. For example, during the initial stabilization in Zambia (1993-94), there was a large accumulation of foreign exchange with only a limited interest by foreigners (mainly banks in Germany) in buying treasury bills.

³³ There are many examples but, once again, Zambia is illustrative. During the period when the economy was stabilizing (with a sharp drop in the rate of inflation) namely mid-1993 to the end of 1994, there was a large inward movement of foreign exchange and currency substitution in favor of the kwacha. However, as economic management deteriorated from mid-1995 onwards, the rate of inflow of local assets declined and currency substitution away from kwacha recommenced. The continued mismanagement of the economy during 1997 and 1998 has led to a major resumption of capital flight.

³⁴ Ghana and Nigeria are examples (Duesenberry and McPherson 1992). Under procedures carried over from the colonial period, the Budget <u>is</u> the legal warrant which sanctions expenditure for each budget item. The budget, however, only stipulates an upper limit on expenditure. It does not indicate when (or if) that expenditure will occur. Some control is exercised by holding ministries to quarterly or even monthly allocations. These are administratively cumbersome and divert the attention of senior government officials from more important aspects of fiscal and monetary policy.

³⁵ Once The Gambian economy began to stabilize, the central bank undertook a special operation to unravel 268 "special" accounts that had accumulated as "other liabilities." Many of these were government expenditures that should have been put through the budget. They appeared in "other liabilities" as a means of "beating" the "net claims on government" target set by the IMF (McPherson and Radelet 1995).

³⁶ This problem emerged in Zambia in 1997 as the Bank of Zambia attempted to force interest rates down.

³⁷ The budgetary charges for outstanding treasury bills overstate the real cost of the tender system. Since the main contribution to monetary growth has come from foreign assets, treasury bills have served to sterilize capital inflow. The domestic liquidity generated when the central bank purchases foreign exchange has been (partially) absorbed by treasury bills. In effect, the domestic interest paid by government on Treasury Bills is largely offset by the interest earned by the central bank on its holdings of foreign assets.

³⁸ The *net* cost to the budget of this operation was relatively small. The government was required to pay the difference between the cost of local bills and the dalasi equivalent of the return on foreign exchange held by the

central bank. The real cost was further lowered by the government's access to counterpart funding (the local currency equivalent of balance of payments support).

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